

Mineral Industry Surveys

For information, contact:

Kim B. Shedd, Cobalt Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4974, Fax: (703) 648-7757
E-mail: ksheddd@usgs.gov

Jo-Ann S. Sterling (Data)
Telephone: (703) 648-7953
Fax: (703) 648-7975
E-mail: jsterlin@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

COBALT IN MARCH 2006

Preliminary data for 2005 and 2006 indicate that U.S. cobalt consumption during January through March 2006 was nearly equal to that during the first 3 months of 2005, according to the U.S. Geological Survey. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals was 5% lower in January through February 2006 than that during the same period in 2005. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals was 5% higher in January through February 2006 than that during the same period in 2005.

Update

Prices for electrolytic cobalt, in dollars per pound from Platts Metals Week, are listed below.

<u>Date</u>	<u>Price range</u>
April 12	15.25-15.75
April 20	15.70-16.00
April 27	15.70-16.00
May 4	15.70-16.00

<u>Month</u>	<u>Average price</u>
April	15.66

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Metal ²	Oxide and other chemical compounds ³	Scrap	Total
2005:				
March	253	175	187	615
April	268	151	187	605
May	256	154	198	608
June	254	176	194	624
July	261	147	177	585
August	276	151	201	628
September	263	159	201	623
October	266	154	201	621
November	259	147	201	606
December	248	148	201	597
January-March ^r	822	478	580	1,880
January-December ⁴	3,170	1,860	2,340	7,380
2006:				
January ^r	289	149	185	624
February ^r	275	151	185	612
March	284	155	185	625
January-March	849	455	556	1,860

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes metal powder.

³Data may include other cobalt materials.

⁴Data based on monthly reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE¹

(Metric tons, contained cobalt)

End use	2005		2006	
	January- March	January- December ²	March	January- March ³
Steel	150 ^r	598	47	143
Superalloys	846	3,300	302	900
Magnetic alloys	58 ^r	235	21	62
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	196 ^r	762	62	187
Chemical and ceramic uses ⁶	563 ^r	2,210	170	500
Miscellaneous and unspecified	68	271	23	68
Total	1,880 ^r	7,380	625	1,860

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data based on monthly reports.

³Includes revisions to prior months' data.

⁴Includes nonferrous alloys, welding materials, and wear-resistant alloys.

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

⁶Includes catalysts, driers in paints or related usages, feed or nutritive additives, glass decolorizer, ground coat frit, pigments, and other uses.

TABLE 3
U.S. REPORTED STOCKS OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Industry ²				U.S. Government, metal ⁵
	Metal ³	Oxide and other chemical compounds ⁴	Scrap	Total	
2005:					
March	344	195	93 ^r	632 ^r	2,340
April	341	208	95 ^r	644 ^r	2,220
May	351	199	89 ^r	639 ^r	2,180
June	347	186	79 ^r	611 ^r	2,070
July	370	201	87 ^r	658 ^r	1,930
August	341	191	102 ^r	634 ^r	1,870
September	353	187	98 ^r	638 ^r	1,810
October	340	180	94 ^r	615 ^r	1,670
November	326	182	91 ^r	599 ^r	1,560
December	330	179	87 ^r	596 ^r	1,550
2006:					
January	310 ^r	187 ^r	70 ^r	566 ^r	1,520
February	315 ^r	183 ^r	72 ^r	570 ^r	1,500
March	330	176	72	578	1,480

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Stocks reported by cobalt processors and consumers.

³Includes metal powder.

⁴Data may include other cobalt materials.

⁵Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY¹

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Metals ²		Oxides and hydroxides		Salts and compounds ³		Total cobalt content for the month ⁵	Cobalt content, year to date ^{5,6}
	Quantity	Value ⁴	Quantity	Value ⁴	Quantity	Value ⁴		
2005:								
February	892,000	\$35,600,000	95,400	\$2,660,000	191,000	\$2,730,000	1,030,000	1,930,000
March	544,000	21,000,000	183,000	5,640,000	215,000	2,690,000	747,000	2,680,000
April	818,000	29,800,000	75,100	1,950,000	98,600	1,230,000	907,000	3,590,000
May	885,000	29,900,000	87,600	2,570,000	173,000	1,660,000	1,000,000	4,580,000
June	904,000	30,100,000	91,600	2,620,000	187,000	2,050,000	1,030,000	5,620,000
July	712,000	22,600,000	119,000	2,920,000	120,000	1,130,000	835,000	6,450,000
August	829,000	23,900,000	82,500	2,210,000	150,000	1,690,000	946,000	7,400,000
September	846,000	26,800,000	113,000	2,770,000	167,000	1,400,000	980,000	8,380,000
October	846,000	26,500,000	111,000	2,610,000	237,000	2,640,000	1,010,000	9,390,000
November	971,000	28,300,000	116,000	2,790,000	158,000	1,840,000	1,120,000	10,500,000
December	379,000	11,000,000	108,000	2,380,000	271,000	2,850,000	555,000	11,100,000
January-February	1,620,000	62,500,000	223,000	6,680,000	421,000	5,590,000	1,930,000	XX
January-December	9,350,000	312,000,000	1,310,000	35,100,000	2,200,000	24,800,000	11,100,000	XX
2006:								
January	906,000	25,000,000	79,300	1,890,000	245,000	2,830,000	1,060,000	1,060,000
February:								
Australia	71,500	1,680,000	--	--	--	--	71,500	76,200
Belgium	62,200	1,760,000	27,900	684,000	2,000	17,600	82,700	137,000
Brazil	20,000	515,000	--	--	--	--	20,000	40,000
Canada	50,600	1,400,000	--	--	--	--	50,600	159,000
China	54,000	1,820,000	22,000	449,000	81,000	800,000	103,000	270,000
Congo (Kinshasa)	9,980	240,000	--	--	--	--	9,980	9,980
Cote d'Ivoire	--	--	--	--	--	--	--	2,590
Finland	13,200	508,000	23,500	478,000	177,000	2,210,000	107,000	176,000
France	1,060	76,500	--	--	--	--	1,060	4,950
Germany	544	26,700	1	2,170	--	--	545	545
India	--	--	--	--	20,000	101,000	5,400	24,400
Japan	18,900	760,000	--	--	--	--	18,900	30,800
Korea, Republic of	--	--	--	--	--	--	--	60
Kyrgyzstan	--	--	--	--	--	--	--	736
Morocco	20,000	472,000	--	--	--	--	20,000	60,000
Norway	97,000	2,580,000	--	--	--	--	97,000	376,000
Philippines	--	--	--	--	5,130	113,000	2,310	4,960
Russia	58,800	1,500,000	--	--	--	--	58,800	245,000
South Africa	500	15,900	--	--	--	--	500	21,500
Sweden	1,100	21,700	--	--	--	--	1,100	1,100
United Kingdom	6,840	126,000	29,000	588,000	32,100	472,000	39,500	50,400
Zambia	84,800	2,140,000	--	--	--	--	84,800	141,000
Total	571,000	15,600,000	102,000	2,200,000	317,000	3,720,000	775,000	1,830,000
January-February	1,480,000	40,600,000	182,000	4,090,000	562,000	6,540,000	1,830,000	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

³Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

⁴Customs value.

⁵Estimated from gross weights.

⁶May include revisions to prior months.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY ¹

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Quantity	Value ²	Quantity	Value ²	Quantity	Value ²
2005:						
February	89	\$16,700	24,100	\$380,000	18,800	\$1,360,000
March	1,100	52,200	82,000	887,000	15,800	1,100,000
April	1,080	65,100	47,400	571,000	31,700	2,030,000
May	11,100	348,000	75,400	845,000	21,300	1,550,000
June	500	33,000	120,000	1,060,000	20,500	1,540,000
July	1,990	95,700	17,100	276,000	27,300	1,730,000
August	675	42,800	91,800	856,000	12,400	1,060,000
September	23,500	711,000	42,700	495,000	18,300	1,150,000
October	10,700	372,000	88,200	594,000	18,700	1,520,000
November	10,100	410,000	100,000	1,090,000	36,900	2,190,000
December	35,200	350,000	53,600	363,000	21,700	1,510,000
January-February	5,190	207,000	96,100	843,000	31,200	2,300,000
January-December	101,000	2,690,000	815,000	7,880,000	256,000	17,700,000
2006:						
January	385	14,000	59,800	1,090,000	14,600	1,140,000
February:						
Canada	813	21,600	18,300	59,900	2,050	395,000
France	--	--	--	--	1,200	118,000
Germany	--	--	--	--	3,610	215,000
Ireland	--	--	9,580	151,000	--	--
Japan	400	24,900	2,890	48,000	2,160	83,600
Korea, Republic of	--	--	1,610	19,700	--	--
Taiwan	--	--	--	--	5	2,780
United Kingdom	165	7,220	35,900	163,000	3,650	264,000
Total	1,380	53,700	68,200	441,000	12,700	1,080,000
January-February	1,760	67,700	128,000	1,530,000	27,200	2,210,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Customs value.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS¹

(Kilograms, gross weight of material, except as noted)

Period	Unwrought cobalt, powders, matte, waste and scrap ²		Oxides and hydroxides		Salts and compounds ³		Total cobalt content for the month ⁵	Cobalt content, year to date ^{5, 6}
	Quantity	Value ⁴	Quantity	Value ⁴	Quantity	Value ⁴		
2005:								
February	120,000	\$3,990,000	52,200	\$1,610,000	118,000	\$363,000	186,000	342,000
March	107,000	4,650,000	57,500	1,260,000	145,000	489,000	183,000	525,000
April	154,000	6,380,000	36,900	862,000	36,500	380,000	189,000	714,000
May	207,000	5,980,000	93,500	2,250,000	36,600	205,000	283,000	998,000
June	170,000	5,710,000	107,000	1,860,000	26,300	217,000	254,000	1,250,000
July	174,000	5,280,000	39,700	818,000	75,200	621,000	221,000	1,470,000
August	170,000	5,560,000	25,500	581,000	18,900	137,000	193,000	1,660,000
September	108,000	4,050,000	154,000	1,780,000	30,400	229,000	226,000	1,890,000
October	147,000	6,240,000	68,000	1,610,000	18,400	119,000	201,000	2,090,000
November	103,000	4,030,000	57,700	1,480,000	88,900	390,000	166,000	2,260,000
December	90,100	3,130,000	110,000	2,410,000	49,200	275,000	181,000	2,440,000
January-February	242,000	9,570,000	79,400	2,200,000	178,000	761,000	342,000	XX
January-December	1,670,000	60,600,000	829,000	17,100,000	704,000	3,820,000	2,440,000	XX
2006:								
January	96,100	3,850,000	108,000	2,610,000	51,500	317,000	187,000	187,000
February	96,200	3,960,000	91,800	2,170,000	43,400	308,000	173,000	359,000
January-February	192,000	7,810,000	200,000	4,780,000	94,800	624,000	359,000	XX

XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

³Cobalt acetates and cobalt chlorides.

⁴Free alongside ship (f.a.s.) value.

⁵Estimated from gross weights.

⁶Year to date may include revisions to prior months.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT,
COBALT ORE, AND CONCENTRATES¹

(Kilograms, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value ²	Quantity	Value ²
2005:				
February	235,000	\$8,710,000	8,390	\$254,000
March	147,000	6,540,000	40,700	556,000
April	184,000	6,530,000	33,000	818,000
May	129,000	6,080,000	49,200	1,300,000
June	230,000	9,230,000	36,200	1,200,000
July	224,000	8,410,000	--	--
August	213,000	7,950,000	242,000	1,870,000
September	147,000	6,370,000	139,000	1,720,000
October	222,000	8,360,000	41,800	1,050,000
November	216,000	8,370,000	--	--
December	204,000	8,800,000	69,200	562,000
January-February	419,000	15,200,000	77,400	3,050,000
January-December	2,340,000	91,800,000	729,000	12,100,000
2006:				
January	188,000	7,160,000	5,150	129,000
February	157,000	7,530,000	6,390	139,000
January-February	345,000	14,700,000	11,500	268,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Free alongside ship (f.a.s.) value.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.